

## Breakout Session Sustainable Design and Decision Making

### Focus question #1: VISION AND GOALS

#### Tools

- Types of tools: life cycle planning, converting data to actionable intelligence, unified techno-economic,
- Flexibility for different industries and metrics

#### Design

- Design for end of life first
- New paradigms for ease of reuse
- End of use management

#### Data

- Performance metrics to value Sustainable Manufacturing
- Data accessibility, free, background data available

#### Social/Culture

- Remove economic risk
- All workers understand Sustainable Manufacturing

#### Programmatic/Guidelines

- Expand Better Plants Program
- Guidelines to value externalities

**Breakout Session Sustainable Design and Decision Making****Focus question # 2: CHALLENGES & BARRIERS**

**Tools** - Lack of integrated design tools

**Design** - Design decisions made w/in stovepipes

**Processing** - Rethink ease of reuse and demanufacturing

**Data** - Data is competitive and IP restrictions

**Supply Chain** - Transparency of supply chain data

**Incentives/Awareness** - Current emphasis is on first cost vs lifecycle

**Communication** - Disconnect between design and end of life

**Workforce/Culture/Social** - Externalities at odd with company interest

**Guidelines** - Need new replicable ecosystem model for industry

**Breakout Session Sustainable Design and Decision Making****Focus Question #3: R&D NEEDS**

- 1) Integration design and decision-making tools for sustainable alternatives, across the lifecycle of the products
- 2) Open access data system
- 3) Data and expert systems for transparent supply chain analysis
- 4) Lifecycle costs, incentives, regulations and workforce development
- 5) Reduction of supply chain risks